



Inside the

INTERNET

Volume 1 Number 9 * December 1994 * US \$5.95

Using Internet Relay Chat as a productive tool

Internet Relay Chat, or IRC, uses the Internet to allow you to communicate with any number of people in real time. For businesses, IRC is a way several employees can hold a text-based, online conference. IRC also allows you online discussions with friends and family members.

In this article, we'll cover some of IRC's architecture, history, and uses. Then, we'll discuss some basic IRC commands and list locations where you can access an IRC discussion as well as IRC client applications for your computer.

IRC background

IRC started out with the TALK protocol, which allows just two users to type messages to one another. While TALK was helpful, its limit on the number of simultaneous users was too restrictive. Therefore, TALK quickly expanded its capabilities. First, it allowed more simultaneous users on the local network. Then, it evolved into IRC by allowing more users across the Internet.

IRC's popularity over the last couple of years has grown exponentially, spawning an update to the IRC protocol—IRCII. The latest standard allows more control and expanded capabilities for IRC users and IRC channel operators.

IRC architecture

The IRC network consists of several interconnected servers that handle all the conversations between users. When you want to use the IRC system, you connect to an IRC server. This server can relay the information you type to other IRC servers, quickly sending your messages to the proper recipients. All this takes only milliseconds in the background.

What good is IRC?

The IRC network can be an invaluable interactive resource and work-enhancing tool, or it can be an incredible waste of time. IRC is best used for meetings, idea swapping, or information gathering. However, many channels offer more than their share of trivial banter, and conversations often get directly to the point. You may also find some of the participants to be less than gracious. Having said that, let's look at how you can use IRC.

Using IRC

As you might have guessed, there are many IRC discussions going on at any one time. Besides joining in public discourse, you can also have private conversations. But before you join in a discussion, you'll need to sign onto an IRC server. Then, you can use the `/LIST` command to find out what channels are currently running. Next, you issue a `/JOIN` command to participate in a particular discussion. Let's use a UNIX shell account to demonstrate these IRC basics.

Signing on

Although there are several hundred IRC servers you can attach to, many restrict access to local sites. If your local site doesn't maintain its own IRC server, you may be able to attach to a server that allows off-site access. If



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you need to tell your IRC client the name of an IRC server to use, reference [Table A](#) for a list of servers that may allow you access.

```
irc.gate.net
irc.uiuc.edu
irc.mit.edu
cs-pub.bu.edu
csa.bu.edu
irc.colorado.edu
irc.uiuc.edu
```

Table A

Many Internet providers offer servers you can use to attach to the IRC network.

If you use a UNIX shell account to access IRC, enter the command `irc` to begin your IRC session. After a few seconds, you should connect to the IRC network and see a message that says something like

```
****Connecting to port 6667 of server
irc.indiana.edu
```

If you use an IRC client application, such as WINIRC or Homer, use it to attach to one of the servers listed in Table A. Once you're in, you'll want to go to a channel. Although several thousand people may be on the IRC network at one time, channels allow you to narrow your interactions to only a few individuals. Channel names almost always begin with a #, such as in #unix.

To become part of an existing channel, you use the `/JOIN` command followed by the name of a channel. For example, if you want to join the #unix channel, type

```
/JOIN #unix
```

From this point on, everything you type—with the exception of commands—will echo to all other users on that channel. By default, IRC interprets anything that starts with a / as a command.

If the #unix channel already exists, your IRC software will return a list of names participating in the

discussion—or you can use the command `/WHO` for a list of channel users. You can get more information about any of the names displayed by using the `/WHOIS` command followed by the name of the person. For example, you can learn about a user named Darin by typing

```
/WHOIS Darin
```

Talking on an IRC channel

Talking to everyone on an IRC channel is easy—simply type your text and everyone on the channel receives the message. As you converse in the IRC channels, you may want to send a private message to a particular person in the chat group. To do this, you use the `/MSG` command followed by the person's screen nickname and your message. For instance, if you want to send TimH a private message, you might type a line that looks like

```
/MSG TimH Tim! What's your opinion on this?
```

Looking for channels

As we said earlier, use the `/LIST` command to get a list of available IRC channels. However, you'll want to use some modifiers to reduce the number of channels your client will return, since the `/LIST` command could display thousands of active channels. To limit the number of items your IRC client returns, use the `-min nn` and `-max nn` options with the `/LIST` command. For example, if you want to see all channels that have three or more participants, you type

```
/LIST -min 3
```

Creating your own channel

If you issue the `/JOIN` command in an attempt to join a channel that doesn't yet exist, IRC creates a new channel and makes you the channel operator, also known as the *chop*, or simply *ops*. For example, you can

issue a `/JOIN #Physics` command in order to create your own channel called #Physics.

As the chop, you can change many of your new channel's attributes. This allows you to set the description others see when they get a list of available channels, to make the channel private, and to allow only invited guests to participate. [Table B](#) lists some of the basic chop commands and how you might use them.

Other channel operator commands

As a channel operator, you have control of your channel and its participants. As you can imagine, you're somewhat responsible for those individuals who abuse the privilege of using your channel. If this happens, use the `/KICK nick` command to forcibly remove a person from your channel. For instance, if a user named TimH were using abusive language toward other participants, you'd use the `/KICK TimH` command to throw TimH off the channel. Moreover, you might then make your channel invitation only. Consequently, TimH couldn't get back on your channel to harass your participants.

In extreme cases, you can ban a user (*nick*) from your channel. To do this, use the command

```
/MODE +b nick!user@host.domain
```

Exiting an IRC

Of course, you'll eventually want to end your IRC session. To do so, simply use the `/BYE` or `/EXIT` command. This will immediately shut down your IRC session and return you to your system prompt.

More IRC tips and traps

You may not be allowed to join some IRC channels that are invitation only,

private, or secret. To enter a private channel, you must know the exact spelling of the channel's name before you can participate in that discussion.

You can save time if you avoid IRC discussions that aren't apparently useful. If you're looking for assistance on a particular topic and you don't see it in your channel list, use the `/EXIT` command to leave your IRC session and use another Internet tool to research your topic.

If you decide to host a productive IRC discussion with others, plan a schedule and decide your topics ahead of time. You should make your channel private or secret if you don't want intrusions. You can also archive copies of your IRC discussion for later reference.

IRC assistance

If you need some assistance, you'll usually find someone to talk to on one of the IRC assistance channels. Ask for assistance in the channels `#irchelp`, `#ircbar`, or `#Twilight_Zone`. Many IRC operators frequent `#Twilight_Zone`. However, they're often busy and may not be monitoring their terminals when you pop into their channel. Of course, you should try the `/HELP` command, which should list all the commands available to your client application.

Where to get the IRC FAQs

You can find the FAQ files for IRC and a newer, less crowded IRC network—Undernet—in several locations on the Internet. Look for the IRC and Undernet FAQs in

<ftp://cs-ftp.bu.edu//irc/support/alt-irc-faq>

You can also get the IRC and Undernet FAQ files from mail-server@rtfm.mit.edu. To do so, address your message to the mail server and place the command

`send /pub/usenet-by-hierarchy/alt/irc/questions/*`

in the body of your message. To get the files via FTP, use your favorite FTP program to attach to rtfm.mit.edu and look for the FAQ files in the directory shown above.

IRC client programs

If you have a direct SLIP, PPP, or Internet connection, you can use the power of your own computer to help you navigate and manage your IRC sessions. [Table C](#) lists locations of several IRC client programs.

Conclusion

IRC is an amazing technology that can bring your team members, partners, family, or friends together. If used properly, IRC can be a valuable productivity tool in your Internet arsenal. ★

/MODE	Variable	Meaning
i	+/- i	The channel is invitation only.
l	l nn	The maximum number of users allowed to a channel is nn.
m	+/- m	The channel is moderated—only channel operators can talk.
v	v <nick>	The channel operator gives a user the ability to talk on a moderated channel.
o	o nick	The user <i>nick</i> becomes a channel operator.
p	+/- p	The channel is private.
s	+/- s	The channel is secret.
t	+/- t	The user can toggle the display of a channel's topic.

Table B

These are some of the basic channel operator commands used in an IRC session.

OS/2

ftp://cs-ftp.bu.edu//irc/clients/pc/os2/irc2_001.zip
<ftp://cs-ftp.bu.edu//irc/clients/pc/os2/irc10h.zip>

PC

<ftp://cs-ftp.bu.edu//irc/clients/pc/msdos/irc101.zip>
<ftp://cs-ftp.bu.edu//irc/clients/pc/msdos/IRC150A.ARJ>
<ftp://cs-ftp.bu.edu//irc/clients/pc/msdos/IRCALL05.ZIP>
<ftp://cs-ftp.bu.edu//irc/clients/pc/msdos/IRCTERM.ZIP>
<ftp://cs-ftp.bu.edu//irc/clients/pc/msdos/meritIRC.zip>
<ftp://cs-ftp.bu.edu//irc/clients/pc/msdos/myirc077.zip>
<ftp://cs-ftp.bu.edu//irc/clients/pc/msdos/pcirc1b.arc>

Windows

<ftp://cs-ftp.bu.edu//irc/clients/pc/windows/irciiwin.zip>
<ftp://cs-ftp.bu.edu//irc/clients/pc/windows/winirc.exe>
<ftp://cs-ftp.bu.edu//irc/clients/pc/windows/wsirc14b.zip>

Macintosh

<ftp://cs-ftp.bu.edu//irc/clients/macintosh/ircle/ircle-1.5.1.sit.hqx>
ftp://cs-ftp.bu.edu//irc/clients/macintosh/homer/*
 *(either `Homer_0.93.4_Serial.sit.bin` or `Homer_0.93.4_TCP.sit.bin`)
 You also need `Faces.sit`, `Homer_Data.sit.bin`, and `Manual.sit`.

VMS

<ftp://cs-ftp.bu.edu//irc/clients/vms/irc176>
<ftp://cs-ftp.bu.edu//irc/clients/vms/ircII-for-vms>
<ftp://cs-ftp.bu.edu//irc/clients/vms/vmsirc27>

UNIX

<ftp://cs-ftp.bu.edu//irc/clients/ircII-2.3.23beta.tar.gz>
<ftp://cs-ftp.bu.edu//irc/clients/ircII2.2.9.tar.gz>

Table C

As you can see, cs-ftp.bu.edu contains several IRC client applications.

Understanding your TCP/IP configuration

Before you can get on the information superhighway, you need to configure your Internet software to take advantage of all the services that make the Internet work. If you use Windows, OS/2, or a Macintosh to access the Internet, there are some basic configurations you need to set before you can use many Internet services. In this article, we'll explain how you can use your Internet software to its fullest.

Your computer's identification number

Just as you had to register for a Social Security number, your computer is assigned a TCP/IP (Transmission Control Protocol/Internet Protocol) number or numerical address. That number is either static—meaning you type it in—or dynamic—meaning you get a new one from a pool of numbers every time you connect to your host server.

No domain is an island

To get to the Internet, your computer usually attaches to a host or network. You can consider that network as a little country, or *subdomain*, and that country as part of a larger continent, or *top-level domain*.

Both the subdomain and top-level domain have names. For example, you might see **whitehouse.gov** on the Internet. The top-level domain **.gov** includes US government Internet networks. The subdomain, **whitehouse**, is the name of an Internet-connected network at the White House. In another example, the domain name **daisy.com** is an Internet-connected commercial network called **daisy**. The **com** portion is a top-level domain, and **daisy** is a subdomain.

Your computer's name and the domain name server

Your computer also gets a name, sometimes called a *fully qualified domain name*. Names don't mean very much to computers, but they do to you. A program and network computer called the Domain Name Server, or DNS, converts the easy-to-remember names into the numbers that computers use.

Your DNS passes its name and number to other DNSs worldwide. In addition to the addresses of other domains, your DNS keeps a record of all the names and associated network numbers of the computers on your local network. If anyone in another domain wants to use a server or resource in your domain, they'll most likely negotiate through the DNS. Entering the name of your DNS in your Internet configuration lets your computer know where to look to translate your name into the numbers it needs.

The gateway

Of course, there's a router, or gateway, that connects your network to the rest of the world. Think of it as

your network's on-ramp. Even if you dial into a host system or on-line service, it has a gateway that connects to the Internet. These gateways have names and addresses, too. When you set up your TCP/IP information, you'll have to enter the name or address of the gateway so that your computer knows where to send information destined for the Internet.

The electronic post office

Two mail-related services you might use are POP (Post Office Protocol) and SMTP (Simple Mail Transfer Protocol). POP holds your mail until you come to pick it up. SMTP transfers your mail when you decide to send it. If you run an E-mail package such as Eudora, you'll need to configure both mail settings. Some news readers will require this information as well.

The network news

Just as your computer needs to know where to look for mail, you need to tell it where to collect your network news. Your programs will use the Network News Transfer Protocol (NNTP).

You may want to synchronize your computer's clock with some standard device. There may be a time server on your network that your computer can use to keep its clock running smoothly.

Your name, password, and home

Most importantly, you should keep a record of your login ID and password and your E-mail ID and password. You'll need these often, and if you forget one, your network

administrator may be very unhappy. Remember that login IDs and passwords are case sensitive. For example, the login IDs **LUser** and **luser** are different.

In addition to your password, you should keep a record of the name of the file server and the path to your home directory—if you have one. Just like IDs and passwords, Internet path names are case sensitive. The path to your home directory should look like

`/usr/home/LUser/`

Extras

You'll want to document any extra information about your setup, particularly your modem settings, login sequence, and the phone number for your local technical support person. If you connect to the Internet via modem, some important options include your modem type and any configuration and init strings you use.

It's always a good idea to keep track of your login sequence. You might want to print your screen information or simply write down every step you take to successfully connect. To help you keep track of your settings, use the chart in [Figure A](#) to document your computer's Internet information. *

- Login ID _____
- Password _____
EXACT spelling in uppercase and lowercase
- E-mail ID _____
- E-mail password _____
- E-mail address _____
- Network domain name _____
- Your computer's fully qualified domain name _____
- DNS server name _____
- DNS IP addresses _____
- 2nd DNS server name _____
- 2nd DNS IP addresses _____
- Gateway, or router, address _____
- POP server name _____
- SMTP server name _____
- NNTP server name _____
- Path _____
Route to personal home directory
- Dial-in phone number _____
- Type of modem _____
- Speed of modem _____
- Modem init string _____
- Modem config string _____
- Help/Technical Support Phone # _____
- Help/Technical Support E-mail _____
- Login sequence _____

Figure A

Use this chart to keep a record of your computer's Internet settings.

Making the Internet connection

When it comes to Internet connectivity, the world seems to be divided into two groups of people—those who aren't connected and those who want a better, less expensive connection. If you want an Internet connection or a better one than those supplied by expensive online service providers, you'll need to find a local Internet provider. In this article, we'll discuss some ways you can get the best Internet connection available.

Getting connected from your home or office

There are several avenues for acquiring an Internet connection. If you plan to connect with a modem from your home or office, you'll most likely get an account

through a university or a company that sells access to the Internet. A few businesses offer dial-in connectivity to their employees. However,

this is the exception rather than the rule. One of the most difficult tasks you'll encounter in getting connected is just finding an Internet provider. Here are some resources that a novice internaut without an Internet connection can use to find an Internet on-ramp:

- Ask your friends who use computers.
- Ask your local computer guru.
- Call a computer retailer or specialty shop.
- Call your local library.
- Attend a computer users' group meeting.
- Call your long distance provider.
- Call InterNIC, the Internet help desk.
- Contact an Internet consultant.

Connecting a single computer

If you want to connect your business to the Internet from home—or testdrive the Internet from work—friends and coworkers, particularly those who use computers, can be a great source of information, and they're often the easiest to reach when you need advice. If you know of a computer guru, you can ask about Internet providers—but be prepared for a very thorough answer. People at your local computer specialty shop, library, and users' groups can often provide many insights into local Internet offerings.

Although several online services—such as Delphi, America Online, and CompuServe—offer some degree of dial-up Internet access, you'll generally get a better hourly rate from a local provider than from these services. Moreover, not all online services offer the breadth of Internet services you need. For example, many online services offer only E-mail access and give you limited capability to download files. You'll also find that online services routinely deny you access to World-Wide Web services.

Connecting your business

If you want to connect your business to the Internet, your long

distance provider may be able to lease your company a direct Internet connection. However, before you sign any long-term contract, make sure you search for all the alternatives. The National Science Foundation's InterNIC service maintains a fairly extensive list of leased-line Internet providers you could consider.

If you don't have Internet experience or experience with configuring an Internet host, you should consider hiring an Internet consultant. The money you spend on an Internet-savvy consultant with good references could save you thousands more in costly mistakes.

What to ask for

Before you connect to the Internet, you should know what services you want to access. The type of connection you use determines the breadth and functionality of programs available to you. Many first-time users are put off by the complexity of many UNIX Internet applications that traditional shell accounts offer. However, the Internet can be easy to use *and* look really great if you have the right kind of connection. Let's go over a few Internet connections and examine their strengths and weaknesses.

Types of connections and accounts

There are two basic ways you can physically connect your computer to the Internet: a direct connection or a dial-up connection. Depending on which option you choose, you'll access the Internet with either a shell account or an Internet Protocol (IP) connection.

The shell account

The shell account is the most common method used to connect to the Internet. With this type of account, you use a communications package such as Smartcom, Procomm, or VersaTerm to attach to a host computer. After you connect to the host, you use its programs to access the Internet.

A shell account requires less setup on your part and for the Internet provider. You'll also find that most educational institutions offer only shell accounts. Commercial service providers charge less for a shell account than an IP connection. Additionally, since the Internet applications run on the host computer and send only text information back to your PC, the performance of an application on older PCs differs only slightly from today's fastest desktops.

On the down side, many applications available to shell account users are difficult to master. For instance, [Figure A](#) shows an example of a File Transfer Protocol (FTP) session that copies a file from a remote server to a personal directory. Online documentation for these programs—often called *man* pages—can add to a novice user's anxiety.

The TCP/IP connection

An IP type of connection can allow you to use applications that are more feature-rich and simple to use than those available on shell accounts. Instead of using the applications and computing resources of a host computer, you get to take advantage of functions and features of client applications that run on your own PC.

You can use Microsoft Windows, the UNIX X-Windows, or Macintosh-based graphical applications to access Internet resources. Using an IP connection and your computer's GUI interface can make your Internet wanderings more pleasant. As [Figure B](#) shows, you can transfer the same file as shown in [Figure A](#) without using the somewhat arcane commands you'd need with a shell account. You can simply use your Windows or other graphical user interface. Because of these and other reasons, IP connections are quickly gaining popularity.

Despite its advantages, configuring your PC to use an IP account can be puzzling when compared to using a shell connection. In addition, maintaining IP connections creates a large workload for your system administrator. Dial-in IP accounts can also add thousands of dollars to your school's or service provider's hardware costs. Although IP connections can provide an easier Internet interface, many people stick with a shell account either because it's all they can get or because it's less expensive.

Direct, SLIP, and PPP connections

Let's suppose you've decided to pursue an IP connection. You've still got more work to do. Once you make the decision to go with IP, you have to choose the type of IP connection. The three basic IP connections you'll encounter are

```
UNIX(r) System V Release 4.0 (widget2)
$ ftp ftp.ncsa.uiuc.edu
Connected to ftp.ncsa.uiuc.edu.
220 idunno.ncsa.uiuc.edu FTP Server (Version wu-2.4(25) Thu Aug 25 13:14:21
1994) ready.
Name (ftp.ncsa.uiuc.edu:kurth): anonymous
331 Guest login ok, send your complete e-mail address as password.
Password:
230-
ftp> cd /Web/Mosaic/Windows
250 CWD command successful.
ftp> binary
200 Type set to I.
ftp> get wmos20a7.zip
200 PORT command successful.
150 Opening BINARY mode data connection for wmos20a7.zip (288404 bytes).
226 Transfer complete.
local: wmos20a7.zip remote: wmos20a7.zip
288404 bytes received in 54 seconds (5.2 Kbytes/s)
ftp> exit
?Invalid command
ftp> bye
221 Goodbye.
$
```

Figure A

Inexpensive shell accounts are easier to set up but more difficult to use.

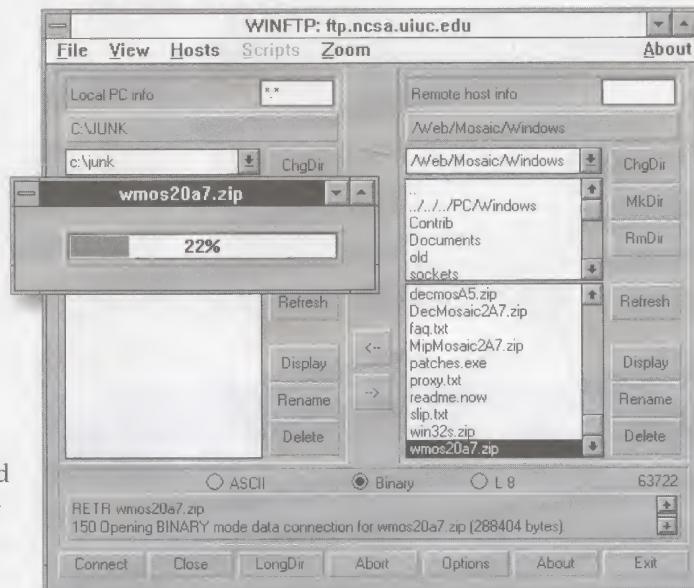


Figure B

You can avoid the tedium of Internet access by using graphical applications.

direct, SLIP, and PPP. Let's briefly examine these connection types and how you can use them.

Connecting directly

If your computer attaches to a local area network (LAN) and your LAN connects to the Internet, you have a direct Internet connection. If your computers use Ethernet or a file server, you probably use a LAN. Your LAN attaches to the Internet through a device called a router, or gateway.

This gateway provides a fast connection to the Internet that any computer on your network may use. [Figure C](#) roughly outlines the layout of a direct Internet connection.

Connecting via SLIP and PPP

If you use a modem to attach to the Internet, you may want to use the powerful programs on your PC, Mac, or workstation to help you navigate the Internet. You'll likely use SLIP or PPP to make this connection.

SLIP stands for Serial Line Internet Protocol, an aging yet widely available standard for dial-up Internet connections. A faster implementation of SLIP now in use, called CSLIP (compressed SLIP), improves SLIP's overall performance.

PPP (Point-to-Point Protocol) is a newer protocol that allows fast, flexible, and simple IP connections. Although PPP's dial-up speed is nearly identical to CSLIP, PPP's flexibility over SLIP and CSLIP and its ability to work with various network types make it the dominant standard for dial-up IP connections.

Contacting InterNIC for more information

As we said earlier, you can get a good amount of information from InterNIC, the National Science Foundation's Internet Network Information Center. InterNIC maintains a large, up-to-date list of local and business Internet providers. You can get this information via Gopher, the Web, or E-mail.

You can point your Gopher or FTP client at the address **is.internic.net**. Once you connect, look in the path

`/infoguide/getting-connected/united-states/`

There you'll find two documents—**internic-us-provider-leased**, which has information about business and dedicated high-speed Internet connections,

and **internic-us-provider-all**, which includes information about dial-up access providers. These are excellent resources if you're trying to learn how you can get better connected.

If you have E-mail access to the Internet, you can talk to InterNIC. Send your questions to

info@internic.net

Catch 22 and the telephone

Of course, if you aren't on the Internet yet, all the Gopher and FTP sites in the world won't do you much good. Chances are, you have access to the most popular international networking tools: the telephone and the postal service. If these are the only tools you have at the moment, don't despair—InterNIC uses them. You can contact InterNIC at

InterNIC Information Services
General Atomics
P.O. Box 85608
San Diego, CA 92186-9784
Phone: (619) 455-4600
Fax: (619) 455-4640

Conclusion

The Internet is growing day by day into the global village that many envisioned it to be. But before you can join that community, you'll need to build a driveway from your home or office to your nearest on-ramp to the "infobahn." The resources you need may be close at hand—or just a phone call away. *

Cable termination?

According to a recent *Computer Reseller News* article, a survey of 5,000 households found that homes with computers are more likely to cancel their premium cable channels.

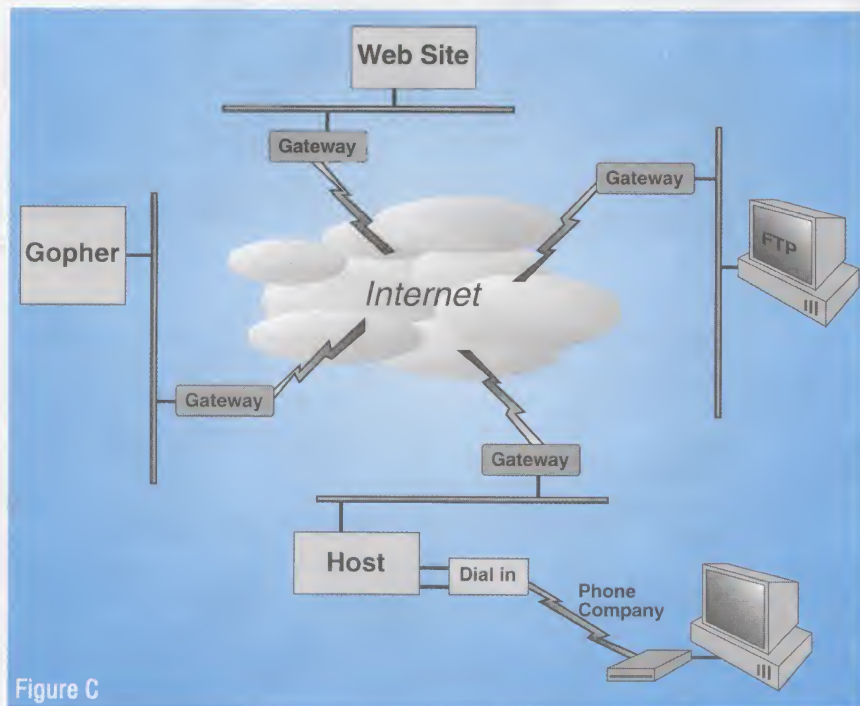


Figure C

If your computer connects to the Internet through a LAN, you have a direct connection.

Digital Elvis



In the words of singer and songwriter Mojo Nixon, "Elvis is everywhere!"—even on the Internet. The Elvis Aron Presley home page, shown in **Figure A**, is a musical and graphical Web-based tribute to The King that you shouldn't miss. From there, you can take a tour of Graceland, listen to authentic Elvis sound clips, and browse through an online gallery of Elvis-related photographs. All you need to take full advantage of the digital Elvis exhibit is a graphical Web browser such as Cello or Mosaic.

To get to the Elvis home page, you'll need to load your Web browser. Once your Mosaic-like browser loads, open a URL to the Elvis home page at

<http://sunsite.unc.edu/elvis/elvishom.html>

In addition to pictures and audio clips, the Elvis pages contain two Elvis-related Windows applications you can download and some interesting facts about Elvis and Graceland. Most importantly, the site holds the record of a séance during which Elvis's spirit is purported to have appeared.

Last seen at Texas A&M's Web site, the Elvis home page now resides in the University of North Carolina's Web server. This digital shrine to Elvis is but one of the many music and multimedia resources available through the Internet. *

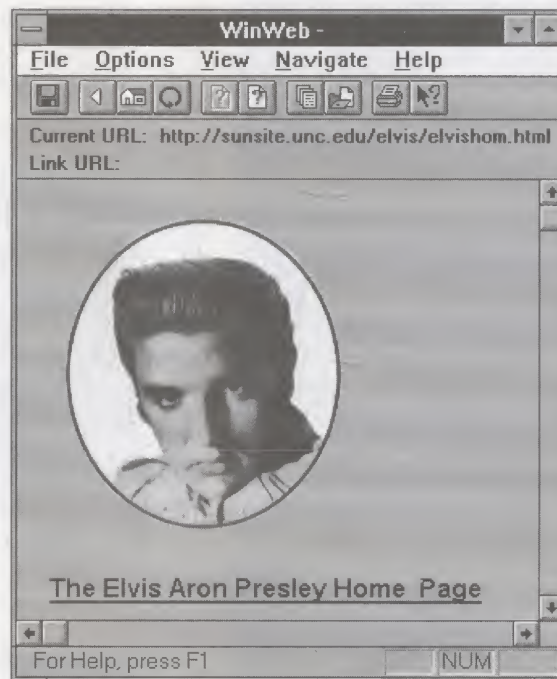


Figure A

With a Web browser such as Cello or Mosaic, you can take a digital stroll through the history of The King at the Elvis Aron Presley home page.

Keeping your Finger on Doom

Are you a fan of the multiplatform, networkable shareware program Doom? If so, you might not know that you can use the Finger protocol to keep track of the latest developments from ID Software, Doom's developer. Even if you don't want to use your Internet connection to learn about software games, this article will illustrate how you can use Finger to distribute information about yourself, your company, or anything you find interesting.

What's Finger?

Finger is an Internet program that lets you distribute information about yourself and collect information about other Internet users. You keep your Finger information in a *.plan* file, which is tied to your user ID. If you use UNIX or a UNIX shell account, the *.plan* file usually resides in your home directory.

If someone is using a program called a Finger daemon, which gives access to that person's *.plan* file, all you need is a Finger client and an E-mail address to acquire the Finger information across the Internet. Many people set up *.plan*

files to distribute information about more than just themselves. ID Software, for example, uses its Finger daemon to inexpensively disseminate product information. Otherwise, the company might have to add expensive phone lines and pay a person to answer the

same set of questions over and over. Finger automates that task.

Getting information about Doom

To illustrate how this aspect of Finger works, let's use it to get ID Software's information about Doom. If you use a UNIX shell account, you can read the Doom .plan file from your command line by typing

```
finger help@idsoftware.com
```

If you have a direct Internet connection or you use SLIP or PPP, you'll need a Finger client to run from your own computer. [Table A](#) lists where you can find them. *

Keeping your Finger on the California Senate

If you live in California and you don't remember who your local state senator is, you can find out by using Finger and your ZIP code. For example, if you live in Beverly Hills, you can see who your senator is by typing

```
90210@sen.ca.gov
```

UNIX

```
ftp://mcsun.eu.net/gnu/finger-1.37.tar.gz
ftp://csvax.cs.caltech.edu/gnu/finger-1.37.tar.gz
```

Windows

```
ftp://zaphod.ncsa.uiuc.edu/PC/Telnet/windows/utilities/
finger/fingv1.zip
ftp://risc.ua.edu/pub/network/winsock/finger31.zip
ftp://winftp.cica.indiana.edu/pub/pc/win3/winsock/
finger31.zip
ftp://nisc.jvnc.net/pub/MSDOS/windows/winsock/
finger31.zip
```

Macintosh

```
ftp://unixd1.cis.pitt.edu/software/mac/finger-137.hqx
ftp://mrcnext.cso.uiuc.edu/pub/info-ftp://mac/comm/tcp/
finger-137.hqx
```

Table A

These Internet sites have Finger clients for your computer.

The roadside café

Noninteractive TV

There's been a lot of media hype about new TV set-top boxes that will allow à la carte shopping, pay-per-view movies, and Internet access for your computer. However, a recent Harris poll indicates that consumers aren't lining up to shop at the *electronic mall*. Only 40 percent of the people polled were interested in ordering movies or sports on demand, and only a third wanted interactive shopping. On the other hand, 63 percent said they'd like health-care information, lists of government services, a phone directory, and product reviews. Almost three-

fourths wanted customized news reports, and about half wanted E-mail.

Poetry readings on the Web

B.A.W.P. (Best-quality Audio Web Poems) is a collection of "spoken word poetry" recorded by the beatniks of today and compressed in MPEG-2 audio format. Although this particular tip doesn't involve much technical expertise on your part, it proves you can use the Internet as a multimedia distribution system. You can find the readings via the Web at

```
http://www.cs.brown.edu/fun/bawp/
```

As always, be kind to the Internet community as a whole and try to transfer these often large audio files at night. The selection of readings available changes about every other week or so.

Internet introduction in a Windows Help file

The Pinellas Park (Florida) Public Library got hit with a slew of Internet-related questions when word got out that they were on the Net. As a result, they developed a Windows Help file tour of the Internet. The file is very brief and intended to help novice users quickly

gain an understanding of the Internet at large.

You can reach the Pinellas Park Public Library's FTP site via anonymous FTP at snoopy.tbclib.fl.us. You'll find the file [nethlp.zip](#) in the /pub directory.

Maps on the Internet

The Canadian National Atlas Information Service offers maps and geographic information at <http://www.nais.ccm.emr.ca>. This site offers information in English and French.

A searchable index of Internet resources

If you have access to the Web through Lynx or Mosaic, you can use the address <http://galaxy.einet.net/galaxy.html> to uncover an extensive searchable index that includes information about Web, WAIS, Gopher, FTP, Telnet, and other Internet resources.

If you have Gopher access to the Internet, gopher.texas-one.org is an excellent resource. TEXAS-ONE has a mirror of the Gopher Jewels project we described in the October issue of *Inside the Internet*.

Other searchable indexes include the Silver Platter World index at <http://www.silverplatter.com/intindex/intro.html> and the Gray Pages at <http://www.trinet.com/tgp/>.

Commercial Sites index

Open Market's Commercial Sites Index, which was featured in last month's issue of *Inside the Internet*, has moved to a new location. You can now find the index at

<http://www.directory.net>

Know your codes

AmeriCom Long Distance, a reseller of international and domestic long distance service, maintains the Area Decoder Web

page. The Area Decoder page allows you to search a worldwide area-code, city-code, and country-code database. The service allows you to look up codes for almost 80,000 cities. To look up an area code, visit the AmeriCom Web Site at

<http://www.xmission.com/~americom/aclookup.html>

Music reviews

The All-Music Guide (AMG) is a large collection of music album ratings and reviews open to public comment and contributions on the Internet. AMG is also available as a 1,200-page book and a CD-ROM. In addition, you can find AMG on CompuServe (go [allmusic](#)). AMG represents the combined efforts of over 200 experienced music writers. Most are well-known reviewers. You can access AMG with Gopher by pointing your client at

gopher://allmusic.ferris.edu/

Get movie reviews from Nando

The Raleigh, North Carolina, *News and Observer* is one of many traditional newspapers entering the digital medium—via their Nando Web site. In addition to hard-news offerings, Nando publishes its movie reviews online at

<http://www.nando.net/epage/nao/links/movierevs.html>

Statement of Ownership, Management and Circulation (Required by 39 U.S.C. 3685 (1A). Title of Publication: Inside the Internet 16 PUBLICATION NO. Pending. 2. Date of Filing: 9/21/94. 3. Frequency of Issue: Monthly. 5A. No. of Issues Published Annually: 12. 5B. Annual Subscription Price: \$69 (\$89 Foreign). 4. Complete Mailing Address of Known Office of Publication (Street, City, County, State and ZIP+4 Code) (Not printers): The Cobb Group 9420 Bunsen Parkway, Suite 300, Louisville KY 40220. 5. Complete Mailing Address of the Headquarters or General Business Office of the Publisher (Not printers): The Cobb Group 9420 Bunsen Parkway, Suite 300, Louisville KY 40220. 6. Full Names and Complete Mailing Address of Publisher, Editor, and Managing Editor (This item MUST NOT be blank.) (Publisher (Name and Complete Mailing Address): Thomas Cottingham, The Cobb Group, 9420 Bunsen Parkway, Suite 300, Louisville KY 40220. Editor (Name and Complete Mailing Address): James Thompson, The Cobb Group, 9420 Bunsen Parkway, Suite 300, Louisville KY 40220. Managing Editor (Name and Complete Mailing Address): Kurt Bendt, The Cobb Group, 9420 Bunsen Parkway, Suite 300, Louisville KY 40220. 7. Owner (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual must be given. If the publication is published by a nonprofit organization, its name and address must be stated.) Full Name: Ziff Communications Co. Complete Mailing Address: 1 Park Avenue, New York, NY 10016 Full Name: Ziff Communications Co. Complete Mailing Address: 1 Park Avenue, New York, NY 10016. 8. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages or Other Securities (If there are none, so state) Full Name: None. Complete Mailing Address: None. 9. For Completion by Nonprofit Organizations Authorized to Mail at Special Rates (GSM Section 424.12 only) The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes (Check one) (1) Has Not Changed During Preceding 12 Months. (2) Has Changed During Preceding 12 Months. (If changed, publisher must submit explanation of changes with this statement.) 10. Extent and Nature of Circulation: A. Total No. Copies (Net Press Run): Average No. Copies Each Issue During Preceding 12 Months: 16,075. Actual No. Copies of Single Issue Published Nearest to Filing Date: 28,563. B. Paid and/or Requested Circulation—1. Sales through dealers and carriers, street vendors and counter sales: Average No. Copies Each Issue During Preceding 12 Months: 1,495. Actual No. Copies of Single Issue Published Nearest to Filing Date: 28,563. 2. Mail Subscriptions (Paid and/or requested): Average No. Copies Each Issue During Preceding 12 Months: 15,080. Actual No. Copies of Single Issue Published Nearest to Filing Date: 27,438. C. Total Paid and/or Requested Circulation (Sum of 10B1 and 10B2) Average No. Copies Each Issue During Preceding 12 Months: 16,575. Actual No. Copies of Single Issue Published Nearest to Filing Date: 28,739. D. Free Distribution by Mail, Carrier or Other Means: Samples, Complimentary, and Other Free Copies: Average No. Copies Each Issue During Preceding 12 Months: 51. Actual No. Copies of Single Issue Published Nearest to Filing Date: 28,563. E. Total Distribution (Sum of C and D) Average No. Copies Each Issue During Preceding 12 Months: 16,626. Actual No. Copies of Single Issue Published Nearest to Filing Date: 28,739. F. Copies Not Distributed: 1. Office use, left over, unsolicited, spoiled after printing: Average No. Copies Each Issue During Preceding 12 Months: 551. Actual No. Copies of Single Issue Published Nearest to Filing Date: 220. 2. Return from News Agents: Average No. Copies Each Issue During Preceding 12 Months: 12. Actual No. Copies of Single Issue Published Nearest to Filing Date: 6. TOTAL (Sum of E, F1 and 2, should equal net press run shown in A.) Average No. Copies Each Issue During Preceding 12 Months: 16,075. Actual No. Copies of Single Issue Published Nearest to Filing Date: 28,563. 11. I certify that the statements made by me above are correct and complete. Signature and Title of Editor, Publisher, Business Manager, or Owner/Manager: Fulfillment Operations PS Form 3526, January 1991

Inside the INTERNET

Inside the Internet (ISSN 1075-7902) is published monthly by The Cobb Group.

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Prices

Domestic \$49/year (\$5.95 each)
Outside US \$89/year (\$7.95 each)

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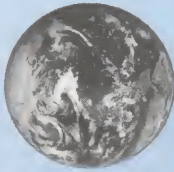
Authorized Canada Post International Publications Mail (Canadian Distribution) Sales Agreement #XXXXXX CANADA GST #123669673. Send returns to Canadian Direct Marketing Sys. Ltd., 920 Mercer Street, Windsor, Ontario, N9A 7C2. Printed in the USA.

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E-mail from our readers

I really enjoyed the October 1994 issue of *Inside the Internet* and found it quite valuable. The articles on URLs and FAQs were also very interesting. However, I have a question concerning each.

First, I tried to track down the suggested URL sources at CERN but was denied access. The server returned the message

"URL: <http://info.cern.ch/hypertext/www/addressing/addressing.html>
WWW Alert: Fatal Error 401 Unauthorized Access Denied <http://info.cern.ch/hypertext/www/addressing/addressing.html>"

Second, the article on FAQs said that rtfm.mit.edu stores FAQs and explained how to access them. What the article didn't tell us was how to find out which FAQs are there. In particular, I'm looking for Visual Basic for Windows and Microsoft Access FAQs. Should I look to Archie to find those files?

Mark S. Hahn
MHAHNBE@delphi.com

Thanks for the kudos, Mark. Now, let's look at your questions. Since many servers on the Internet use UNIX, most filenames are case sensitive—a UNIX convention. I see that the URL that didn't work was in all lowercase characters. To get to the Web page that describes URL structure, try using the URL again but change the case on *www* and *addressing*.

The address should look like

<http://info.cern.ch/hypertext/WWW/Addressing/Addressing.html>

Also, Delphi occasionally handles addresses differently. Because you're logging in from Delphi, you may need to enclose your address in quotes. This technique definitely works with Delphi's FTP client.

The FAQs at rtfm.mit.edu number in the thousands. The **rtfm** mail server keeps a text snapshot of all files it stores, including path names and filenames you can search with your word processor. The URL for the compressed version of the **rtfm** index is

<ftp://rtfm.mit.edu/Index-byname.gz>

(Please note the uppercase character.) The **rtfm** index is over 230 Kb in size. After you get the file, you'll need to decompress it with **gzip124.zip** if you use DOS. If you download the file via the Mac, use StuffIt Expander 3.5.1. Although this file will take some time to download, you can search it quickly with a word processor. This will save you hours of connect time, since you won't have to pick your way through **rtfm**'s directories.

Archie might yield some interesting results in your quest for Visual Basic and Microsoft Access information. You might also point a Gopher client to the address **gopher.microsoft.com**. There, you'll find searchable indexes of Microsoft's Knowledge Base that contain plenty of information about Access and Visual Basic. *

Contact *Inside the Internet*

We're interested in your personal recommendations, stories, experiences, and Internet wisdom. If you care to relate any ideas or questions to other *Inside the Internet* readers or to the editorial staff, please send us E-mail. We'll share as much of your input as we can. You can reach *Inside the Internet* staff anytime via Internet E-mail. Our address is

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Of course, you can contact us via regular mail or by phone or fax. Whatever your question or comment, we're interested.

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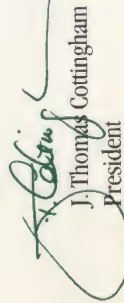
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